

Title (en)  
Hybrid vehicle

Title (de)  
Hybridfahrzeug

Title (fr)  
Véhicule hybride

Publication  
**EP 1400386 A3 20050629 (EN)**

Application  
**EP 03021317 A 20030919**

Priority  
JP 2002274315 A 20020920

Abstract (en)  
[origin: EP1400386A2] In a hybrid vehicle in which front wheels are driven by an engine and a front motor, and rear wheels are driven by a main rear motor and a sub rear motor, both main rear motor and the sub rear motor are driven when a large driving force is required as when the vehicle is driven at low speed to haul a trailer or the like or to run on a sandy ground, whereas when the required driving force is small, only the main rear motor is driven. <IMAGE>

IPC 1-7  
**B60K 6/04; B60K 17/356; B60K 1/02**

IPC 8 full level  
**B60K 6/38** (2007.10); **B60K 6/40** (2007.10); **B60K 6/44** (2007.10); **B60K 6/485** (2007.10); **B60K 6/52** (2007.10); **B60K 6/54** (2007.10);  
**B60K 17/04** (2006.01); **B60K 17/356** (2006.01); **B60L 7/12** (2006.01); **B60L 50/16** (2019.01); **B60W 10/08** (2006.01); **B60W 10/26** (2006.01);  
**B60W 20/00** (2006.01); **B60K 1/02** (2006.01)

CPC (source: EP US)  
**B60K 6/44** (2013.01 - EP US); **B60K 6/52** (2013.01 - EP US); **B60K 17/356** (2013.01 - EP US); **B60W 10/08** (2013.01 - EP US);  
**B60K 1/02** (2013.01 - EP US); **Y02T 10/62** (2013.01 - EP US); **Y10S 903/906** (2013.01 - EP US)

Citation (search report)

- [XY] US 4090577 A 19780523 - MOORE WALLACE H
- [Y] US 2001039230 A1 20011108 - SEVERINSKY ALEX J [US], et al
- [X] US 5627438 A 19970506 - BARRETT ROBERT D [US]
- [A] US 5934397 A 19990810 - SCHAPER DOUGLAS [US]
- [A] DE 333377 C 19210223 - RUDOLF SLABY DR ING
- [A] US 5253724 A 19931019 - PRIOR RONALD E [US]
- [A] EP 0622264 A2 19941102 - HITACHI LTD [JP]
- [A] US 2002023790 A1 20020228 - HATA HIROSHI [JP], et al
- [A] PATENT ABSTRACTS OF JAPAN vol. 004, no. 023 (M - 093) 26 February 1980 (1980-02-26)
- [A] PATENT ABSTRACTS OF JAPAN vol. 016, no. 498 (M - 1325) 15 October 1992 (1992-10-15)

Cited by  
EP2025570A4; EP1518735A1; EP1518738A1; EP1518736A1; KR20210028676A; EP2123498A1; FR2931399A1; US7104921B2; US7264070B2;  
FR2911566A1; CN114340934A; EP4026717A4

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)  
**EP 1400386 A2 20040324; EP 1400386 A3 20050629; EP 1400386 B1 20070905**; DE 60316081 D1 20071018; DE 60316081 T2 20080626;  
JP 2004112956 A 20040408; JP 4104406 B2 20080618; US 2004069548 A1 20040415; US 7240748 B2 20070710

DOCDB simple family (application)  
**EP 03021317 A 20030919**; DE 60316081 T 20030919; JP 2002274315 A 20020920; US 66376403 A 20030917